SUPPLEMENTAL MATERIAL

Table S1. Comparison of antibody levels between participants with and without prior COVID-19 infection at matched time points. Values are shown as median and interquartile range [IQR], with comparisons performed using Wilcoxon tests. Sample sizes at baseline, After Dose 1, and After Dose 2 included: N=902, N=490, and N=227 for persons without prior COVID-19; and N=78, N=35, and N=11 for persons with prior COVID-19.

	No Prior COVID-19	Prior COVID-19	P value
Log IgG(S)			
Baseline	0.6 [0.2, 1.2]	6.0 [4.6, 6.9]	<0.001
After Dose 1	7.0 [6.3, 7.6]	10.0 [9.2, 10.4]	<0.001
After Dose 2	9.9 [9.4, 10.3]	10.6 [10.3, 10.7]	<0.001
Log IgG(N)			
Baseline	-3.9 [-4.6, -3.2]	0.6 [-0.5, 1.2]	<0.001
After Dose 1	-2.8 [-3.9, -1.7]	0.6 [-0.1, 1.2]	<0.001
After Dose 2	-2.7 [-3.7, -1.3]	1.0 [0.2, 1.1]	<0.001
Log IgM(S)			
Baseline	-3.2 [-3.5, -2.7]	-0.3 [-1.4, 0.8]	<0.001
After Dose 1	0.1 [-0.8, 0.8]	0.1 [-0.4, 1.0]	0.43
After Dose 2	0.7 [-0.1, 1.3]	-0.1 [-0.6, 1.4]	0.59

Table S2. Comparison of antibody levels between participants with and without prior **COVID-19** infection at shifted time points. Values are shown as median and interquartile range [IQR], with comparisons performed using Wilcoxon tests. Sample sizes at baseline, After Dose 1, and After Dose 2 included: N=902, N=490, and N=227 for persons without prior COVID-19; and N=78, N=35, and N=11 for persons with prior COVID-19.

	No Prior COVID-19	Prior COVID-19	P value
No Prior COVID-19	After Dose 1, Prior COVID-19	at Baseline	
Log IgG(S)	7.0 [6.3, 7.6]	6.0 [4.6, 6.9]	<0.001
Log IgG(N)	-2.8 [-3.9, -1.7]	0.6 [-0.5, 1.2]	<0.001
Log IgM(S)	0.1 [-0.8, 0.8]	-0.3 [-1.4, 0.8]	0.09
No Prior COVID-19	After Dose 2, Prior COVID-19	After Dose 1	
Log IgG(S)	9.9 [9.4, 10.3]	10.0 [9.2, 10.4]	0.91
Log IgG(N)	-2.7 [-3.7, -1.3]	0.6 [-0.1, 1.2]	<0.001
Log IgM(S)	0.7 [-0.1, 1.3]	0.1 [-0.4, 1.0]	0.052

Table S3. Sensitivity analysis comparing antibody levels between participants with and without prior COVID-19 infection at matched time points. Values are shown as median and interquartile range [IQR], with comparisons performed using Wilcoxon tests. The sample with data available at all time points included N=206 without prior COVID-19 and N=10 with prior COVID-19.

	No Prior COVID-19	Prior COVID-19	P value
Log IgG(S)			
Baseline	0.7 [0.2, 1.2]	5.9 [2.7, 7.2]	<0.001
After Dose 1	7.0 [6.2, 7.6]	10.2 [8.4, 10.5]	<0.001
After Dose 2	9.9 [9.4, 10.3]	10.6 [10.3, 10.8]	0.001
Log IgG(N)			
Baseline	-3.9 [-4.6, -3.0]	0.7 [0.1, 1.0]	<0.001
After Dose 1	-2.7 [-3.9, -1.6]	0.8 [-0.1, 1.2]	<0.001
After Dose 2	-2.7 [-3.9, -1.3]	0.9 [0.0, 1.1]	<0.001
Log IgM(S)			
Baseline	-3.2 [-3.5, -2.7]	-1.2 [-1.9, 0.5]	<0.001
After Dose 1	0.0 [-0.7, 0.7]	0.1 [-0.2, 1.0]	0.51
After Dose 2	0.7 [-0.1, 1.3]	-0.2 [-0.7, 1.1]	0.24

Table S4. Sensitivity analysis comparing antibody levels between participants with and without prior COVID-19 infection at shifted time points. Values are shown as median and interquartile range [IQR], with comparisons performed using Wilcoxon tests. The sample with data available at all time points included N=206 without prior COVID-19 and N=10 with prior COVID-19.

	No Prior COVID-19	Prior COVID-19	P value
No Prior COVID-19	After Dose 1, Prior COVID-19	at Baseline	
Log IgG(S)	7.0 [6.2, 7.6]	5.9 [2.7, 7.2]	0.049
Log IgG(N)	-2.7 [-3.9, -1.6]	0.7 [0.1, 1.0]	0.001
Log IgM(S)	0.0 [-0.7, 0.7]	-1.2 [-1.9, 0.5]	0.08
No Prior COVID-19	After Dose 2, Prior COVID-19	After Dose 1	
Log IgG(S)	9.9 [9.4, 10.3]	10.2 [8.4, 10.5]	0.58
Log IgG(N)	-2.7 [-3.9, -1.3]	0.8 [-0.1, 1.2]	<0.001
Log IgM(S)	0.7 [-0.1, 1.3]	0.1 [-0.2, 1.0]	0.31

Table S5. Comparison of proportions of anti-Spike protein IgG antibody levels ≥50 AU/mL between participants with and without prior COVID-19 infection. Sample sizes at baseline, After Dose 1, and After Dose 2 included: N=902, N=490, and N=227 for persons without prior COVID-19; and N=78, N=35, and N=11 for persons with prior COVID-19.

	No Prior COVID-19	Prior COVID-19	P value
Matched time points			
lgG S ≥50 AU/mL	n/N (%)	n/N (%)	
Baseline	19/902 (2)	62/78 (79)	<0.001
After Dose 1	479/490 (98)	35/35 (100)	0.78
After Dose 2	225/227 (99)	11/11 (100)	1.00
Shifted time points			
No Prior COVID-19 Aft	ter Dose 1, Prior COVID-19	at Baseline	
IgG(S) ≥50, %	479/490 (98)	62/78 (79)	<0.001
No Prior COVID-19 Aft	er Dose 2, Prior COVID-19	After Dose 1	
IgG(S) ≥50, %	225/227 (99)	35/35 (100)	1.00

Table S6. Comparison of proportions of anti-Spike protein IgG antibody levels ≥4160 AU/mL between participants with and without prior COVID-19 infection. Sample sizes at baseline, After Dose 1, and After Dose 2 included: N=902, N=490, and N=227 for persons without prior COVID-19; and N=78, N=35, and N=11 for persons with prior COVID-19.

	No Prior COVID-19	Prior COVID-19	P value
Matched time points			
IgG S ≥4160 AU/mL	n/N (%)	n/N (%)	
Baseline	0/902 (0)	6/78 (8)	<0.001
After Dose 1	37/490 (8)	27/35 (77)	<0.001
After Dose 2	220/227 (97)	11/11 (100)	1.00
Shifted time points			
No Prior COVID-19 Aft	er Dose 1, Prior COVID-19	at Baseline	
lgG(S) ≥4160, %	37/490 (8)	6/78 (8)	1.00
No Prior COVID-19 Aft	er Dose 2, Prior COVID-19	After Dose 1	
lgG(S) ≥4160, %	220/227 (97)	27/35 (77)	<0.001

Figure S1. Anti-Nucleocapsid IgG Antibody Response to mRNA SARS-CoV-2 Vaccination in Persons With and Without Prior COVID-19 Infection. Box plots display the median values with the interquartile range (lower and upper hinge) and ± 1.5 -fold the interquartile range from the first and third quartile (lower and upper whiskers).

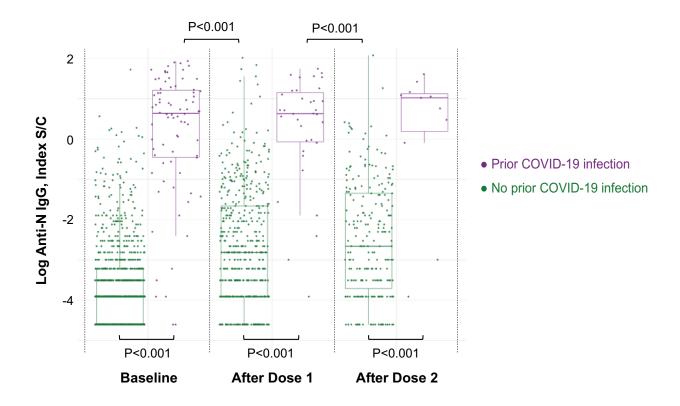


Figure S2. Anti-Spike IgG Antibody Response to mRNA SARS-CoV-2 Vaccination in Persons With and Without Prior COVID-19 Infection: Values Above and Below 50 AU/mL. Box plots display the median values with the interquartile range (lower and upper hinge) and ±1.5-fold the interquartile range from the first and third quartile (lower and upper whiskers).

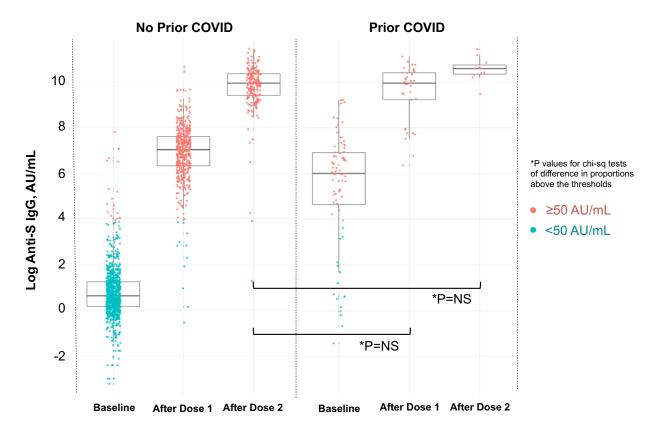


Figure S3. Post-Vaccination Symptoms in Persons With and Without Prior COVID-19 Infection.

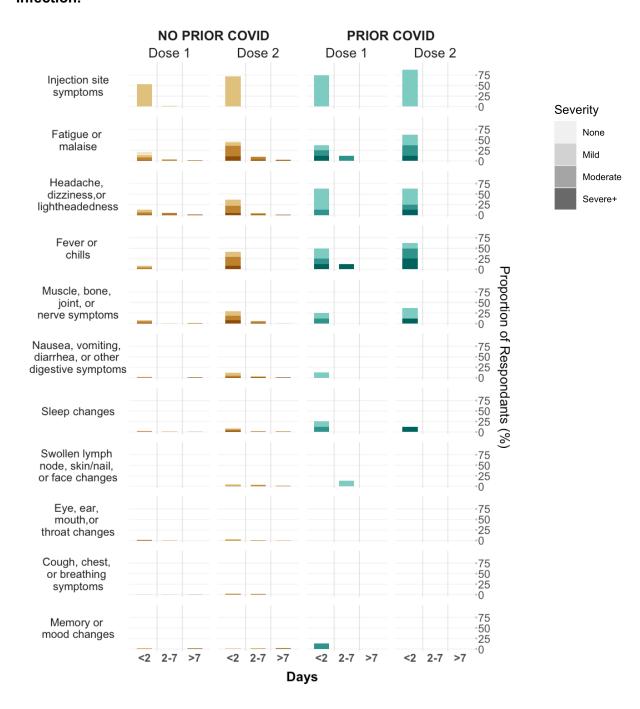


Figure S4. Anti-Spike IgG Antibody Response to mRNA SARS-CoV-2 Vaccination in Persons With and Without Prior COVID-19 Infection: Values Above and Below 4160 AU/mL. Box plots display the median values with the interquartile range (lower and upper hinge) and ±1.5-fold the interquartile range from the first and third quartile (lower and upper whiskers).

